

dition affecting the climate. A plateau of the same height and latitude closely surrounded by an ocean would have a very moist and cloudy climate, and if a little higher up would be covered with snow and glaciers. The conditions that favor the formation of glaciers or permanent fields of snow on such a large scale as once prevailed in eastern North America, can be elucidated by the comparison of the Wyoming plateau with surrounding lowlands. Mr. W. S. Palmer, Section Director for Wyoming, has added to his tables a number of stations outside of the State, and, perhaps, a few more would bring out the general climatological relations that we have in mind.

NEW METEOROLOGICAL TERMS.

Occasionally a word that is new to the Editor is found in the reports of our observers, or in the newspaper and popular literature of the day. Past experience shows that these words may, many years hence, crop up again as proper meteorological terms in use over wide areas. Much labor has been spent in hunting up the origin of the word "blizzard," and we shall probably do a favor to a future generation of historians, if we make a permanent record of these words which are, at present, in very local usage only.

In the January report of the Tennessee section, Mr. H. C. Bate, Section Director, publishes the report of the voluntary observer at Grace, Tenn., to the effect that "the first day of the year is a very cold one; a small 'skift' of snow fell and there was a very cold north wind."

We hope to receive the exact definition and usage of this word "skift."

WINTER THUNDERSTORMS IN MISSISSIPPI.

In the January report of the Mississippi Section, Mr. H. E. Wilkinson, Section Director, states:

Thunderstorms in midwinter are not unknown in the lower Mississippi Valley, but it seldom happens that such an electric disturbance as that of December 10, 1899, occurs, even in summer. During the past ten years nine thunderstorms have been recorded at Vicksburg during the month of December; in some cases two in one month, and in three cases none during the month. The records for twenty-nine years show but eight cases where over 5 inches of rain fell in twenty-four hours and but four cases where the rain was heavier than on December 10. At Vicksburg on this date the thunder and lightning held sway throughout the day and into the night. The morning chart of December 9 showed a moderate depression central over Oklahoma and central Kansas. At 8 p. m. of the 9th this had spread over a large area from Iowa to Texas. By 8 p. m. of Sunday, the 10th, the depression had contracted in area and increased in depth until the barometer reached 29.58 at Little Rock, Ark. At Vicksburg heavy rain fell from early in the morning of the 10th, without intermission, throughout the day, accompanied at times by vivid lightning and terrific thunder. The climax was reached by 5 p. m. The line of 8 inches of rainfall or more was confined to the southwestern counties of the State, the major portion falling between 10 a. m. and 10 p. m. Sunday.

SNOWFALL IN THE ROCKY MOUNTAINS.

In the January report of the Colorado section Mr. F. H. Brandenburg, Local Forecast Official and Section Director, gives his usual summary of the snowfall in the mountains. When these reports have been accumulated for a few years, they will form an invaluable fund of data for the investigation of the laws controlling not only the fall but especially the accumulation of snow in the formation of glaciers. Warm rains, warm sunshine, and dry winds eat up the snow that falls in Colorado so that glaciers are scarcely possible under existing conditions. A slight modification of these conditions made immense glaciers possible in the Rocky Mountain region, and especially in the Lake region and the

northern Appalachians during the glacial epoch of geology. Mr. Brandenburg reports that at the close of the current January the depth of snow was only from one-third to one-half as much as at the end of January, 1899, for stations between 7,500 and 10,000 feet, but that for stations in the vicinity of timber line the ratio ranges from one-third to two-thirds. Among the reports of deep snows lying on the ground at the end of the month at timber line we quote the following:

	Inches.
Arkansas watershed:	
Colddale, Fremont County.....	72
Menger, Las Animas County.....	172
South Platte watershed:	
Bailey, Park County.....	36
Jefferson, Park County.....	36
Rio Grande watershed:	
Wagon Wheel Gap, Mineral County.....	36
Alder, Saguache County.....	36
Gunnison watershed:	
Iola, Gunnison County.....	48
White Pine, Gunnison County.....	40
Grand watershed:	
Ivanhoe, Pitkin County.....	60
Watson, Pitkin County.....	172
Crystal, Gunnison County.....	84

In the January report of the Idaho section, Mr. S. M. Blandford, Section Director, gives some statistics relative to snow, from which we copy the following:

In general the snowfall is decidedly deficient; it is only in the mountains of Bear Lake and Oneida counties, in the southeastern corner of the State, that the snowfall has approached the average. For comparison with the data in Colorado we copy the following from among the larger figures giving the depth of snow on the ground at the end of the month at timber line:

	Inches.
Snake River watershed:	
Parker, Fremont County.....	13
Wilford, Fremont County.....	26
Bear River and Lake drainage:	
Liberty, Bear Lake County.....	18
Ovid, Bear Lake County.....	30
Wood River watershed:	
Corral, Blaine County.....	24
Boise Basin:	
Atlanta, Elmore County.....	14

It is evident that there is danger of a deficiency of water in the rivers during the coming spring and summer.

THE RELATION OF TEMPERATURE TO COLOR.

It is quite a common fallacy to say that the darker colors are warmer, whether we speak of clothing or soils. But it is far more proper to say that the darker color is due to the texture and other qualities of the cloth or soil, and that these other qualities (not the color itself) cause the differences as to warmth. In the January report of the Virginia section, Mr. E. A. Evans, Section Director, illustrates this point by a quotation from Johnson's work *How Crops Feed*, as follows:

"The observations of Malaguti and Durocher prove that the peculiar temperature of the soil is not always so closely related to color as to other qualities. They studied the thermometric characters of the following soils, viz: Garden earth of dark, gray color (a mixture of sand and gravel, with about 5 per cent of humus); a grayish-white quartz sand; a grayish-brown granite sand; a fine light gray clay (pipe clay); a yellow sandy clay; and finally, four lime soils of different physical qualities.

It was found that when the exposure was alike, the dark gray granite sand became the warmest, and next to this the grayish-white quartz sand. The latter, notwithstanding its lighter color, often acquired a higher temperature at a depth of four inches than the former, a fact to be ascribed to its better conducting power. *The black soils never became so warm as the two just mentioned.* After the black soils, the others

¹ On northern slopes.